

FAKTOR RISIKO TERJADINYA PNEUMONIA KOMPLIKATA PADA ANAK

INTISARI

Latar belakang: Pneumonia merupakan penyebab kematian terbesar ke-2 di negara berkembang, di Indonesia, prevalensi pneumonia pada balita mencapai 3,55% (setara dengan 890.151 balita) setiap tahunnya. Sekitar 3% dari *community acquired pneumonia* (CAP) dapat beprogresi menjadi pneumonia komplikata, meskipun begitu, pneumonia komplikata ini bertanggung jawab atas > 75% dari total kematian akibat pneumonia pada anak usia < 5 tahun. Identifikasi awal terhadap faktor yang meningkatkan risiko terjadinya pneumonia komplikata sangat penting untuk dilakukan, agar anak mendapatkan penanganan secara komprehensif dan mencegah luaran yang buruk.

Tujuan Penelitian: Penelitian ini dilakukan untuk mengetahui hubungan antara faktor-faktor risiko berupa usia, jenis kelamin, status gizi, komorbid, kadar saturasi oksigen, riwayat berat badan lahir rendah, riwayat imunisasi serta riwayat pemberian ASI eksklusif serta kadar hemoglobin, leukosit, dan trombosit terhadap terjadinya pneumonia komplikata pada anak.

Metode Penelitian: Penelitian ini penelitian observational analitik dengan desain *case control*. Sebanyak 200 pasien disampling menggunakan metode *purposive sampling* dengan mempertimbangkan kriteria penelitian. Dari total 2246 pasien pneumonia anak yang di rawat inap di RSUP Dr. Sardjito pada periode Januari 2018 – Desember 2022, setelah dilakukan penyaringan data berdasarkan kriteria eksklusi, didapatkan jumlah sampel akhir penelitian sebanyak 144 pasien. Analisis data dilakukan secara bivariat menggunakan Pearson's Chi Square untuk seluruh variabel independen dan secara multivariat menggunakan regresi logistik bagi variabel independent yang memenuhi syarat.

Hasil: Dari total 144 subyek yang diikutsertakan dalam penelitian, sebanyak 56 (38,9%) mengalami pneumonia komplikata, dengan jenis komplikasi lokal yang paling umum dijumpai adalah efusi pleura (15,2%) dan komplikasi sistemik yang terbanyak adalah sepsis (11,8%). Pada rangkaian analisis bivariat dan multivariat ditemukan tiga faktor risiko yang secara signifikan dan independent berhubungan dengan kejadian pneumonia komplikata, yakni leukositosis ($p = 0,018$; aOR = 3,05), dan trombositopenia ($p = 0,02$; aOR = 7,72).

Kesimpulan: Prevalensi dari kasus pneumonia komplikata pada anak di RSUP Dr. Sardjito pada periode Januari 2018-2022 adalah 38,9% dan ditemukan tiga faktor risiko yang secara signifikan berhubungan dengan kejadian pneumonia komplikata, yakni keberadaan komorbiditas dalam bentuk apapun, leukositosis, dan trombositopenia.

Kata kunci: pneumonia komplikata, anak-anak, faktor risiko, komorbid, leukositosis

RISK FACTORS FOR THE OCCURRENCE OF COMPLICATED PNEUMONIA IN CHILDREN

ABSTRACT

Background: Pneumonia is the second leading cause of death in developing countries. In Indonesia, the prevalence of pneumonia among toddlers reaches 3,55% (equivalent to 890.151 toddlers) annually. Approximately 3% of community-acquired pneumonia (CAP) cases can progress to complicated pneumonia. However, complicated pneumonia is responsible for over 75% of total pneumonia-related deaths in children under 5 years of age. Therefore, early identification of risk factors associated with the occurrence of complicated pneumonia is crucial to ensure comprehensive management and prevent adverse outcomes in children.

Objective: This study aims to investigate the relationship between risk factors, including age, gender, nutritional status, comorbidities, oxygen saturation levels, history of low birth weight, immunization history, exclusive breastfeeding history, as well as hemoglobin, leukocyte, and platelet levels, and the occurrence of complicated pneumonia in children.

Methods: This study employed an analytical observational research design with a case-control approach. A total of 200 patients were sampled using *purposive* sampling method from a pool of 2,246 children with pneumonia who were admitted to Dr. Sardjito General Hospital from January 2018 to December 2022. After screening the data based on exclusion criteria, a final sample size of 144 patients was obtained. Bivariate data analysis was conducted using Pearson's Chi-Square test for all independent variables, and multivariate analysis was performed using logistic regression for eligible independent variables.

Results: Out of the total 144 subjects included in the study, 56 (38.9%) experienced complicated pneumonia, with pleural effusion being the most common local complication encountered (15.2%), and sepsis being the most prevalent systemic complication (11.8%). In the bivariate and multivariate analysis, three risk factors were found to have a significant and independent association with the occurrence of complicated pneumonia. These factors were the presence of leukocytosis ($p = 0,018$; $aOR = 3,05$), and thrombocytopenia ($p = 0,02$; $aOR = 7,72$).

Conclusion: The prevalence of complicated pneumonia cases in children at Dr. Sardjito General Hospital from January 2018 to 2022 was 38.9%. Three significant risk factors were identified to be associated with the occurrence of complicated pneumonia, namely the presence of any form of comorbidity, leukocytosis, and thrombocytopenia.

Keyword: complicated pneumonia, children, risk factors, comorbidity, leukocytosis